

ABSTRACT OF THE DISCLOSURE

A lead alloy for lead acid-battery grids which essentially consists of about 0.05-0.07 wt % calcium; about 0.09-1.3 wt % tin; about 0.006-0.010 %silver; about 0.0100-0.0170 wt% barium and about 0.015-0.025 wt% aluminum with the balance lead. This lead alloy allows the improvement of the age hardening step, by eliminating the high temperature treatment process required for silver alloys in the manufacturing of lead-acid batteries. By using this lead alloy, a longer service life of the lead-acid batteries are also obtained by increasing the corrosion resistance and the mechanical strength of battery grids manufactured by the book molding process. Additionally, the reduced silver level used dramatically mitigates the problem of silver elimination from the stream of recycled lead in the secondary production of this metal.